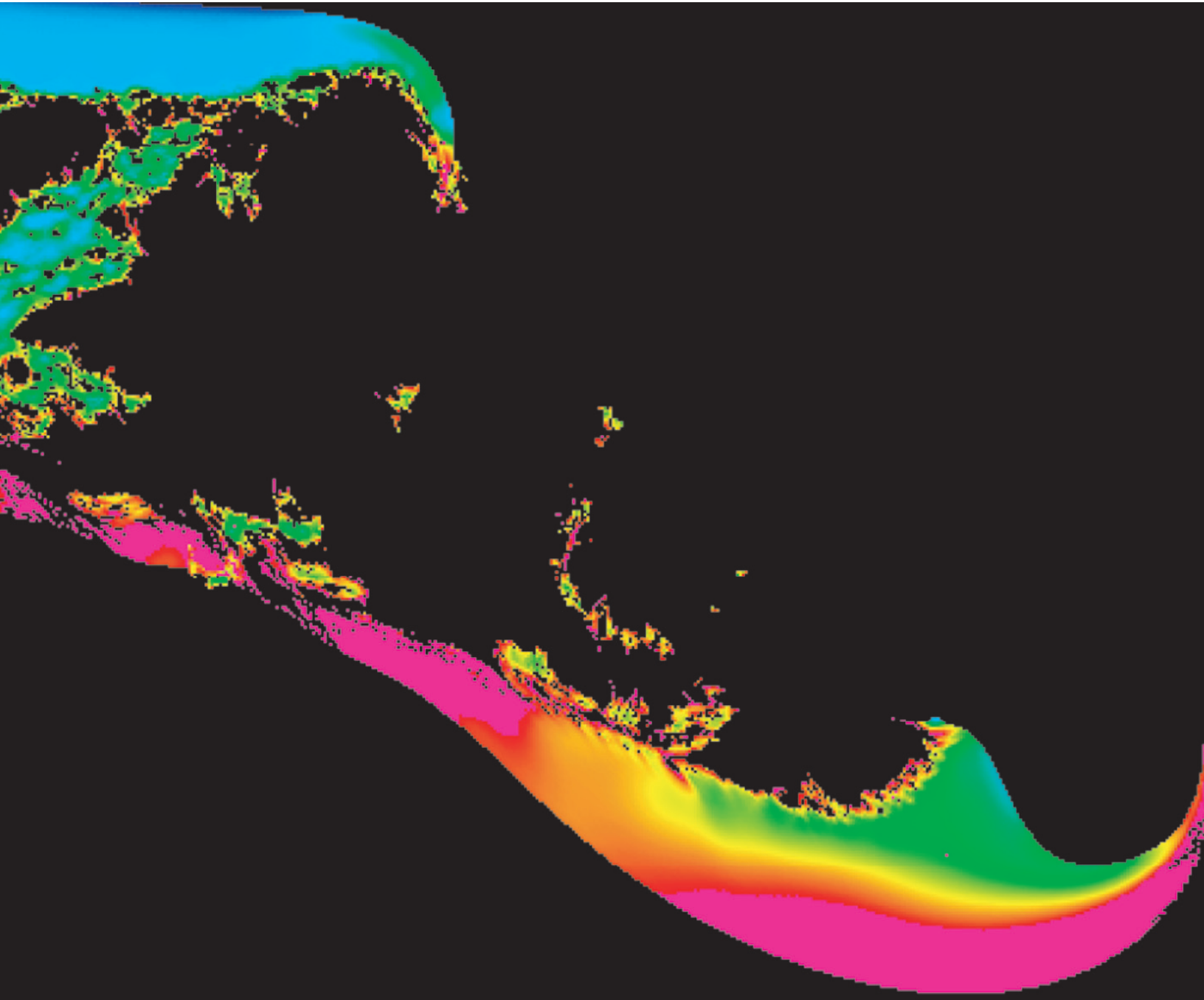
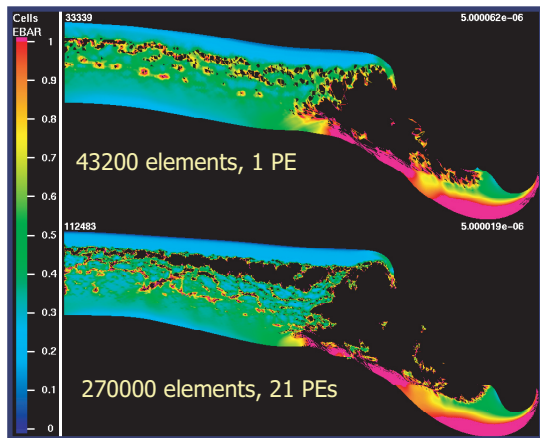


THEORETICAL DIVISION

NUCLEAR WEAPONS PROGRAM HIGHLIGHTS

2004–2005





About the Cover

The image on the front cover is taken from Epic simulations of a miniature-detonator experiment conducted at Los Alamos National Laboratory (a tantalum cylinder driven by a cylinder of PETN high-explosive detonated at the center of the outside surface) using a single processor and 21 processors on SGI Origin 2000. (Both calculations are shown at the left on this page.) The 21-processor calculation has much higher mesh resolution, but the two calculations show about the same results indicating that the lower-resolution single-processor calculation is fully converged. See the full paper "Parallel Epic Porting, Simulations, and Performance," by Manjit S. Sahota, Eric N. Harstad, and Paul J. Maudlin (T-3); Thomas A. Mason (MST-8); and Eric M. Mas (T-1) on page X in this volume.

